

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Justin Mortensen et al.

Docket No.: LSI.74US01 (03-0840)

Application No.: 10/621,085

Examiner: Giovanna B. Colan

Filed: July 15, 2003

Group Art Unit: 2162

For: DATA MANAGEMENT USING DISPERSED AND DISPARATE DATABASES

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Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
Alexandria, VA 22313-1450

**APPEAL BRIEF**

Sir:

Applicant has filed a timely Notice of Appeal on September 14, 2007 from an Office Action by the Examiner, dated May 14, 2007, finally rejecting claims 1-11 in the above-identified patent application. This Appeal Brief is being filed under the provisions of 37 C.F.R. §1.191 and §40.37 in response to the Notice of Panel Decision from Pre-Appeal Brief Review dated October 1, 2007.

**REAL PARTY IN INTEREST**

The real party in interest in this application is LSI Logic Corporation, having an address at 1621 Barber Lane, Milpitas, California 95035.

**RELATED APPEALS AND INTERFERENCES**

None.

**STATUS OF THE CLAIMS**

Claims 1-11 were originally filed in the present patent application, are currently pending in the patent application and are on appeal.

Claims 1-11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cianfrocca et al. (U.S. Patent No. 6,088,796) in view of Ananian et al. (U.S. Patent No.

6,922,701), and further in view of Shapiro (U.S. Patent Application Publication No. 2006/0005126 A1, filed on October 7, 2002).

### **STATUS OF AMENDMENTS**

The Preliminary Amendment dated October 11, 2006 was the last amendment filed in this patent application, and has been entered. There have been no amendments filed subsequent to the final rejection dated May 14, 2007.

### **SUMMARY OF THE CLAIMED SUBJECT MATTER**

Briefly, the present invention pertains to computer-aided design data management systems and specifically to the management of dispersed data that have differing file types. The invention overcomes the disadvantages and limitations of the prior art by providing a system and method for managing CAD data across disparate and dispersed databases, the system being composed of a web services clearinghouse that maintains a database of registered CAD data. The registered CAD data may be located in different databases in different locations. A plug-in program is provided for various CAD systems that allow HTTP and XML messages to be sent directly to the web services clearinghouse to request and receive data, including CAD data in whatever format is necessary. The plug-in program may allow a user to browse the available files registered in the web services clearinghouse and request a file or set of files. Those files may be located on a database in a remote location behind at least one firewall. The web services clearinghouse may then retrieve the requested data from the remote database, translate the data as necessary, and transfer the requested data to the plug-in. The plug-in may then convert the data as necessary into the format requested. The clearinghouse may maintain a database of the metadata of various files and data located in the disparate and dispersed databases, but in general the clearinghouse may not maintain the actual data. The clearinghouse may perform authentication, authorization, and accounting services in addition to security and various levels of controlled access to the data.

The various databases that are accessed by the clearinghouse may or may not have a plug-in or other specialized communications program that enables

communication between the database and the clearinghouse. In some embodiments, a local product data management system may have a plug-in that enables communication to the clearinghouse while in other embodiments, the CAD tool plug-in may incorporate such functions.

The advantages of the present invention include that collaborative parallel design functions may be enhanced by managing CAD data through a web services clearinghouse. Those users with the appropriate permission may request CAD data through company firewalls, have that data retrieved, translated if necessary, and delivered simply and effectively in a process that was heretofore cumbersome and typically involved people at each end of the transaction. Data security is maintained throughout the transaction.

Independent claim 1 includes a method for managing CAD data in a plurality of disparate and diverse databases as is described in page 3, lines 11-26, page 5, line 6, to page 6, line 29, page 7, lines 8-28, and page 10, line 10, to page 11, line 13, of the subject specification, as originally filed, and in FIG. 2 thereof.

Independent claim 7 includes a system for sharing files across disparate databases as is described on page 3, beginning on line 27, to page 4, line 11, page 4, line 23, to page 5, line 5, page 6, line 30, to page 7, line 7, and page 7, line 29, through page 10, line 9, of the subject specification, as originally filed, and in FIGS. 1 and 2 thereof.

### **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The issue presented for appeal are whether claims 1-11 are patentable under 35 U.S.C. 103(a) over Cianfrocca et al. (U.S. Patent No. 6,088,796) in view of Ananian et al. (U.S. Patent No. 6,922,701), and further in view of Shapiro (U.S. Patent Application Publication No. 2006/0005126 A1, filed on October 7, 2002).

### **ARGUMENT**

#### **I. REJECTION BY EXAMINER:**

In the Office Action dated May 14, 2007, made final, the Examiner rejected claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cianfrocca

et al. (U.S. Patent No. 6,088,796), in view of Ananian et al. (U.S. Patent No. 6,922,701 B1), and further in view of Shapiro (U.S. Patent Application Publication No. 2006/0005126 A1, filed on October 7, 2002).

A. Regarding Claim 1, the Examiner stated that Cianfrocca et al. discloses a method of managing data in a plurality of disparate and diverse databases, comprising: providing a first database located in a first location and further being located behind a first firewall; providing a second database located in a second location and further being located behind a second firewall; providing a clearinghouse server located outside of said first firewall and said second firewall, said clearinghouse server having a clearinghouse database; providing a workstation located behind said first firewall; said workstation having a clearinghouse interface program; and establishing communications between said clearinghouse interface program with said clearinghouse server.

The Examiner continued that Cianfrocca et al. does not explicitly teach indexing CAD data from the databases, transmitting request for a requested file, determining the location of said requested file, sending a request to second database for said file, converting said file to transmittable format, or transmitting said file. However, the Examiner asserted that Ananian et al. discloses a method and system for managing CAD data files, including: a clearinghouse database comprising an index to at least a portion of CAD data in first database and at least a portion of CAD data in second database; transmitting a request for a requested file from said clearinghouse interface program to said clearinghouse server; determining that said requested file is located in said second database by using said clearinghouse database; sending a request from said clearinghouse server to said second database for said requested file; and converting said requested file to a first transmittable format, and concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the functionality of Ananian et al. for sending and converting a CAD file to the system and method of Cianfrocca et al. to let users manipulate, modify, and update different CAD format files. The Examiner concluded further that one of ordinary skill in the art at the time the invention was made would have been motivated to do so, in order to improve interaction between the client and the professionals throughout the

construction process; to ensure consistent and informed client input, cost-effective decisions, while maintaining the client's visionary perspective (Col. 2, lines 10-17, of Ananian et al.). In addition, the Examiner continued, the prior art suggests a successful outcome of this combination, such as, significantly reducing the time, complexity and uncertainty involved in the design of a structure, improving interaction between the client and the builder throughout the construction process, acquiring a fully detailed build specification from a client, and reducing lengthy communications between the builder and the client, making the builder efficient and able to focus on the core task: building the house.

The Examiner stated that the combination of Cianfrocca et al. in view of Ananian et al. discloses all the limitations as discussed above including translating the content, but the combination of Cianfrocca et al. in view of Ananian et al. does not expressly disclose: without content change of said requested file. Shapiro, the Examiner continued, discloses converting files to formats without content change of said requested file (FIGS. 5 and 6, "Source Artwork ENGLISH," and Target translated Artwork FRENCH," Pages 4, 5, and 6, [0051], [0067], and [0072], lines 1-20, 9-13, and 8-11, "... the Extractor adds an attribute whose value corresponds to the sequential identification number and which **does not cause a change to the appearance of the object in the Artwork file...**" (Emphasis added by the Examiner.); and further "...when translating from one language to another, the size of print (point size) may need to decrease, or increase, **to preserve the same legibility of original text...**" (Emphasis added by the Examiner.); respectively, Shapiro). The Examiner concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the Shapiro's teachings to the system of the combination of Cianfrocca et al. in view of Ananian et al., since a skilled artisan would have been motivated to do so, as suggested by Shapiro (Page 4, [0051], lines 1-9, of Shapiro); and to efficiently transform location based objects, to convert geographical maps from one language to another, avoiding major re-editing of the source file, but keeping the appearance and quality of the location based translated text. In addition, the Examiner continued, the references (Cianfrocca et al., Ananian et al., and Shapiro et al.) teach features that are directed to analogous art and they are directed to the same field of endeavor, such as,

databases management systems, converting CAD data files, and translation. The Examiner concluded that this close relationship between the applied references highly suggests an expectation of success. Furthermore, the Examiner continued, the combination of Cianfrocca et al. in view of Ananian et al. and further in view of Shapiro discloses: "... and transmitting said requested file from said second database in said first transmittable format".

B. Regarding claim 7, the Examiner stated that the combination of Cianfrocca et al. in view of Ananian et al. and further in view of Shapiro discloses a system for sharing files across disparate databases comprising: a first server located behind a first firewall and connected to a first database that contains a first set of files; a second server located behind a second firewall and connected to a second database that contains a second set of files; a clearinghouse server located outside of said first firewall and said second firewall; a clearinghouse database located on said clearinghouse server and having an index to at least a portion of said first set of files in said first database and at least a portion of said second set of files in said second database; a workstation located behind said first firewall and having a clearinghouse interface program capable of interfacing with said clearinghouse database on said clearinghouse server, said clearinghouse interface program further capable of sending a request for a specific file indexed in said clearinghouse database; said clearinghouse server further receiving said request for said specific file from said workstation, determines that said specific file is located on said second database, and sends said request for said specific file to said second server; and said second server further receives said request for said specific file, locates said specific file in said second database, converts said specific file into a first transmittable format without content change of said specific file (FIGS. 5, and 6, "Source Artwork ENGLISH", and "Target translated Artwork FRENCH", Pages 4, 5, and 6, [0051], [0067], and [0072], lines 1-20, 9-13, and 8-11, "... the Extractor adds an attribute whose value corresponds to the sequential identification number and which does not cause a change to the appearance of the object in the Artwork file..." (Emphasis added by the Examiner.); and further"...when translating from one language to another, the size of print (point size) may need to decrease, or increase, to preserve the same legibility of original

text...” (Emphasis added by the Examiner.); respectively, of Shapiro), and sends said specific file.

C. The Examiner rejected dependent claims 2-6 and 8-11 which depend from independent claims 1 and 7, respectively. Since applicants believe that claims 1 and 7 are patentable over Cianfrocca et al. in view of Ananian et al. for the reasons to be set forth hereinbelow, and further share the limitations of the independent claims, applicants believe that no response is required concerning dependent claims 2-6 and 8-11.

## **II. APPLICANTS’ ARGUMENT:**

A. Turning now to the rejection of claims 1 and 7 under 35 U.S.C. 103(a) as being unpatentable over Cianfrocca et al. in view of Ananian et al., the preamble of subject claim 1 recites in part: “A method of managing CAD data in a plurality of disparate and diverse databases ... ,” while that for claim 7 recites in part: “A system for sharing files across disparate databases ... .” Both claims, as earlier amended, require that the content of said files remains unaltered.

The Abstract of Ananian et al. recites: “A method for generating an interactive profile of a structure, such as a building, employing an interactive profile system ... A plan set, usually in a CAD format, is received into the interactive profile system, typically submitted by the user or client. ... The plan set is converted to a profile data set by the profiling engine. ... The profiling engine performs a systematic enhancement of the plan set, building upon the elemental physical descriptions of the plan set. ... The user directs a profile query to the application engine of the interactive profile system. ... .” (Emphasis added by applicants.).

Ananian et al., beginning in Col. 2, line 62 and ending on Col. 3, line 8, sets forth: “To expand the received plan set into the building’s profile database, the plan set is converted to a profile data set by the profiling engine. The profile data set is compliant with an enhanced data protocol, which is a specific format for organizing the profile data set in a standardized array. The profiling engine ‘parses’ or extracts, the profile data set to develop and link the plurality of potentially interrelated building components to develop a plurality of interrelated components. The profiling engine performs a systematic enhancement of the plan set, building upon the elemental physical description of the plan set. Each element of the physical description is functionally

analyzed for relational attributes and then expanded. Links are created within the profile data set, between related components.” (Emphasis added by applicants.).

In footnote number 5 of subject Office Action, the Examiner stated that: “According to the Academic Press Dictionary of Science and Technology from Elsevier Science & Technology, ‘translate’ means: “1. To convert from one computer language to another. 2. Generally, to convert information from one form to another without altering meaning or function.” From the quotations from Ananian et al. in the previous two paragraphs, it is clear that the plan set submitted by the user is modified by the profiling engine of Ananian et al.

Additionally, although a translation may convert a file from one computer language to another, generally without altering the meaning or function, if one reviews the actual language used in Ananian et al. set forth in the following paragraph, it is clear that: (1) Ananian et al. is referring to the data files in the plan set, not the entire plan set; and (2) even if the language of the data file is changed, additional changes are intended to be made such as correction of the level, color, line style, and line weight to match the enhanced data protocol utilized by the profiling engine.

Column 7, lines 4-15, of Ananian et al. state that: “It is possible that a digital file comprising the plan set 50 can be collected without linked attributes, as would be required for ‘non-Microstation’ software application such as AutoCAD™ ... . The data file of the plan set can be translated, either manually or with the aid of a program, to the correct level, color, line style, and line weight to match the enhanced data protocol utilized by the profiling engine 30. This standardized protocol, preferably in CAD format, or alternatively an SVG (scalable vector graphic) format, facilitates linkage and extraction to the enhanced profile database 40.” (Emphasis added by applicants.).

Column 4, lines 57-60 of Ananian et al. state: “The generation of the interactive, enhanced profile database 40 is a key element of the present invention. To begin the formulation of the enhanced profiles, a plan set 50 is received into the interactive profile system 10.” In Col. 6, lines 39-46, of Ananian et al. it is stated: “For the present invention, the enhanced data protocol is an internally standardized profile database format that enables the plan set 50 to be expanded and utilized by the interactive profile



system **10**. ... The plan set is converted to the standardized data set by the profiling engine **30** of the interactive profile system.” (Emphasis added by applicants.).

Column 13, lines 15-37 recite: “The user **25** can direct a profile query **177** to the application engine **20** of the interactive **16** profile system **10**, as shown in FIG. 1. The term “query” is broadly interpreted to include requests to modify records of the enhanced profile database. ... Therefore, the term “query” can also apply to an inquiry into the enhanced profile database, relating to a specific component or to the interrelationship between one or more building components. The application engine **20** responds to the profile query **177** with a profile response **178**. The profile response includes a listing of at least one of the plurality of interrelated elements of the enhanced profile database **40**. These interrelated elements can be associated, related or grouped in any report format that the user **25** requires. The profile response to the profile query is sent to the user, preferably over the Internet to the web browser of the user.” (Emphasis added by applicants.). Column 14, lines 34-44, state: “After the application engine **20** receives the profile query **177** from the user **25**, the application engine then generates a search based upon the profile query. The profile query may be a request for a listing of component or a “what if” request. The application engine preferably transmits to profile results **178** of the profile query in the form of a report. If, however, the user **25** submits a profile query **177** that modifies a record **170**, as would be performed if the user requires or desires a change to a component of the project **130**, a data set revision **120** order can be generated by the application engine **20**, as shown in FIG. 1.” (Emphasis added by applicants.).

Thus, in the principal embodiment of the invention of Ananian et al., the user receives a report from the interactive profiling system in response to a user inquiry. Moreover, the user’s original plan is converted to a standardized data set, which may be very different from what was originally submitted by the user.

In Col 20, lines 2-11, of Ananian et al. it is stated that: “As an alternative embodiment of the present invention, the interactive profiling system **10** can export the profiled plan set **50**, preferably in CAD format, so that the user **25** can call up the plan from within a profile manager if they ever need to review it for future projects. After subscribing to the interactive profiling system, the user can access any user-submitted

plan set **50**, which are all available in CAD format, or any other appropriate format, for export. The exported CAD file can also be helpful to the builder during the project management phase.” (Emphasis added by applicants.). If the user wishes, the profiled plan set **50** may be sent to the user. This plan is not plan set 50, originally sent by a user. Subject claims 1 and 7, as amended, recite that the user is sent a requested file converted into transmittable form, not one that is “profiled” or otherwise modified, as required by the teachings of Ananian.

Thus, since the user cannot manage CAD data in a plurality of disparate and diverse databases (subject claim 1) or share files across disparate databases (subject claim 7) without modification of the content thereof, applicants believe that Ananian et al. clearly teaches away from the present claimed invention. This is not in any manner remedied by the teachings of Cianfrocca et al. and applicants respectfully believe that the combination by the Examiner of Cianfrocca et al. with Ananian et al. as proposed by the Examiner does not render obvious the present claimed invention.

Turning to the Examiner’s statements that: (1) the combination of Cianfrocca et al. and Ananian et al. discloses all the limitations as discussed above including translating the content; (2) the combination of Cianfrocca et al. in view of Ananian et al. does not expressly disclose: without content change of said requested file; (3) Shapiro discloses converting files to formats without content change of said requested file (Fig. 5, and 6, “Source Artwork ENGLISH”, and “Target translated Artwork FRENCH”, Pages 4, 5, and 6, [0051], [0067], and [0072], lines 1-20, 9-13, and 8-11, respectively, of Shapiro); and (4) that it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the Shapiro’s teachings to the system of the combination of Cianfrocca et al. in view of Ananian et al., since a skilled artisan would have been motivated to do so, as suggested by Shapiro (Page 4, [0051], lines 1 – 9, Shapiro); and to efficiently transform location based objects, to convert geographical maps from one language to another, avoiding major re-editing of the source file, while keeping the appearance and quality of the location based translated text, applicants respectfully disagree with the Examiner’s interpretation of the Shapiro reference.

Applicants wish to direct the Board’s attention to the following paragraphs of Shapiro: (a) in the ABSTRACT, it is stated: “A method of transforming location based

objects, such as text, included in a digital source Artwork file, for example a geographical map file, and creating a transformed target Artwork file. ... The required transformations are then operated on the extracted objects, partly manually but also automatically creating a transformed second intermediate database, which is subsequently integrated with the source file to create a target file, which represents, for example, a new map with translated text on new layers." (Emphasis added by applicants.); (b) Paragraph [0001] states: "There are many software packages available for professional creation, layout and editing of drawings, illustrations and images, together with text, henceforth such hybrid documents will be generally referred to, as known in the art, as Artwork."; (c) Paragraph [0015] states: "The present invention deals with capabilities, limitations and deficiencies of currently available Artwork programs when the purpose is to externally apply changes in an efficient way, whether these changes are, location attributes and/or style attributes of textual and non-textual objects to one or more objects in Artwork, as well as to externally add new objects to an existing Artwork file as a result of calculations or transformations externally applied to the original objects." (Emphasis added by applicants.); (d) Paragraph [0031] states: "Target language text may also require change of fonts, appropriate fonts may have to be selected, obtained and installed in the designer's computer. Additional operations may also be required from the Designer such as specifying, creating and naming new styles and layers. Text in one language is rarely similar to the same text in another language as to the number of characters and words. Designer intervention may further be required in order to manipulate target language text alignment, placement and attributes such as character size and weight, kerning etc." (Emphasis added by applicants.); and (e) Paragraph [0039] states: "Therefore, when changing the language of the Artwork file, for example when creating a new version of a map in another language, it may be advantageous not to start 'from scratch' from the original data and replace the text into the other target language via the GIS database, but from the then-final version of the Artwork file and introduce whatever language specific changes are necessary in that file. Recreating the map and introducing the same displacements, relocations and typographical changes to the elements in the map is very costly and inefficient. It is frequently more economical and therefore advisable to start with the

artwork file, which already contains the necessary changes due to overlaps, collisions and like considerations, together with culture-driven changes, and to change that file according to the new requirements-be it translation into another language, a newer version, the correction of certain parameters and changes in some objects.”

Paragraph [0051], cited by the Examiner states: “The object of the invention is to provide an integrated expert system for efficiently transforming location based objects, such as text or graphic objects, included in a digital source Artwork file, for example a geographical map file or a CAD design, and creating a transformed target Artwork file. The method is particularly advantageous in converting geographical maps from one language to another, avoiding major re-editing of the source file, but keeping the appearance and quality of the location based translated text. The method include tools for extracting required location based objects, for example, text elements, form the source file, including all pertaining information into a first intermediate structured database, represented for the user as, for example, a table. The required transformations are then operated on the objects stored in the table, partly manually but also automatically creating a transformed second intermediate database, which is subsequently integrated with the source file to create a target file, which represents, for example, a new map with translated text objects on new layers.” (Emphasis added by applicants.).

Thus, Shapiro does not merely teach the efficient transformation of location based objects to convert geographical maps from one language to another as suggested by the Examiner, but rather adds new objects and layers to an existing Artwork file as a result of calculations or transformations externally applied to the original objects. Article 2141.02 Differences Between Prior Art and Claimed Invention of the Manual Of Patent Examining Procedure, Section VI requires that a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983).

In addition, the Examiner stated that the references (Cianfrocca et al., Ananian et al., and Shapiro) teach features that are directed to analogous art and they are directed to the same field of endeavor, such as, databases management systems, converting

CAD data files, and that this close relation between the applied references highly suggests an expectation of success. Applicants respectfully disagree with the Examiner that there would be any teaching, suggestion or motivation for one having skilled in the art to combine Shapiro with Ananian for the reasons cited by the Examiner, since Shapiro clearly teaches that changes are made to the files. The Federal Circuit ruled in *In re Kahn* (Fed. Cir. No. 04-1616, March 22, 2006), that a Board of Patent Appeals and Interferences must articulate the motivation, suggestion or teaching that would have led the skilled artisan at the time of the invention to combine prior art elements to make the claimed invention. To establish a *prima facie* case of obviousness based on a combination of prior art elements, "the Board must articulate the basis on which it concludes that it would have been obvious to make the claimed invention, ... . When the Board does not explain the motivation, or the suggestion or teaching, that would have led the skilled artisan at the time of the invention to the claimed invention as a whole, we infer that the Board used hindsight to conclude that the invention was obvious."

Assuming, for the purpose of discussion, that Shapiro teaches that no changes are required in order to create a transformed target Artwork file, Ananian et al. requires that the plan set is converted to the standardized data set by the profiling engine 30 of the interactive profile system. By combining Shapiro with Ananian et al., then, the Examiner has created a combination which cannot work; that is, Ananian et al. requires a change to the original plan set, while the Examiner argues that Shapiro does not. Section 2145 of the Manual of Patent Examining Procedure states that: "It is improper to combine references where the references teach away from their combination."

Thus, applicants believe that the Examiner has failed to make a proper *prima facie* case for obviousness as is required under 35 U.S.C. 103(a) by combining the Ananian et al., Cianfrocca et al., and Shapiro references as described hereinabove.

#### **B. APPLICANTS' ARGUMENTS BASED ON EXAMINER'S RESPONSE TO ARGUMENTS:**

In the Response to Arguments beginning on page 13 of the Office Action dated May 14, 2007, the Examiner stated in part that: "In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that

the features of claims 1 and 7 upon which applicant relies (i.e., ‘the user is sent a requested file converted into transmittable form’; and that the claims as earlier amended require that: ‘the content of said files remains unaltered’) are not recited in such rejected claims. ... .” Since this latter limitation was specifically added to claims 1 and 7 by the Preliminary Amendment dated October 11, 2006, applicants fail to understand what the Examiner means by this statement.

**1. Support For The Limitation ‘without content change of said requested file’:**

Support for the limitation: ‘without content change of said requested file’ may be found in the following citations from the subject Specification, as originally filed. First, on page 4, lines 14-17, it is stated that: “Those users with the appropriate permission may request CAD data through company firewalls, have **that** data retrieved, translated if necessary, and delivered simply and effectively in a process that was heretofore cumbersome and typically involved two people at each end of the transaction.” (Emphasis added by applicants.). The use of the word “that” in this context, clearly indicates that the retrieved data are the very same CAD data that were requested. Moreover, page 5, lines 6-7, state: “The system of embodiment 100 may allow users from different companies to **share** files and information in a simple and easy manner.”; and on page 7, lines 29-30 it is stated that: “Figure 2 illustrates an embodiment 200 of the present invention showing the interactions of various components of a system for **sharing** files.” (Emphasis added by applicants.). In accordance with definitions provided by Google Search, meanings for the word “share” include: (a) use jointly or in common; (b) partake: have, give, or receive a share of; ‘We shared the cake’; and (c) A resource made available to others across a network. The essence of these definitions is that “share” means using or receiving the **same** thing.

Further, on page 8, lines 5-9, of the Specification, as originally filed, it is stated that: “The communications service 216 may send a message to the second server 206 requesting the file, whereupon the second server 206 may retrieve the file from database 218 and either transmit the requested 220 file **directly** to the workstation plug-in 202 or send the requested file 222 to the communications service 216.” (Emphasis added by applicants.). Google Search defines “directly” as: (a) without deviation; and

(b) without anyone or anything intervening. Therefore, the subject Specification teaches that files may be transmitted without change.

Thus, applicants believe that although the exact words “without content change of said requested file” do not appear as such in the subject Specification, as originally filed, the equivalent concepts and words are clearly present therein.

**2. Identification of the recitation that ‘the user is sent a requested file converted into transmittable form’:**

The last 3 recitations in claim 7 state: “... sending a request from said clearinghouse server to said second database for said requested file; converting said requested file to a first transmittable format without content change of said requested file; and transmitting said requested file from said second database in said first transmittable format.” Clearly, the requested file is transmitted to the clearinghouse server. In page 5, lines 8-10, of the subject Specification, as originally filed, states: “A clearinghouse server 110 may provide an index to each of the various databases and facilitate communication between the companies while allowing each company its freedom to operate independently.” Although the word “user” does not appear in subject claims 1 and 7 since it is an unnecessary part of the recitation of the method, transmitting the requested file to the clearinghouse server which is recited in claim 1 as being located outside of the firewalls, along with the identification of the clearinghouse with users in the Specification clearly supports applicants’ previous arguments. A similar argument may be made for claim 7.

**3. The Combination of Cianfrocca and Ananian with Shapiro Is Improper:**

On page 14 of the Office Action dated May 14, 2007, the Examiner stated in part that: “However, the combination of Cianfrocca with Ananian does not expressly disclose: without content change of said requested file. Therefore, the Examiner presented the third reference Shapiro which discloses converting files to formats without content change of said requested file.” (Emphasis added by applicants.).

Assuming only for the purposes of what follows that the Examiner has properly combined Cianfrocca et al. with Ananian et al., applicants respectfully believe that the Examiner has improperly combined Shapiro for the alleged teaching of converting files

to formats without content change of said requested file, with Cianfrocca et al. with Ananian et al.

The Examiner has asserted that Shapiro explicitly discloses translating without modifying the content (Fig. 5, and 6, "Source Artwork ENGLISH", and "Target Translated Artwork FRENCH", Pages 4, 5, and 6, [0051]. [0067], and [0072], lines 1-20, 9-13, and 8-11,"... the Extractor adds an attribute whose value corresponds to the sequential identification number and which **does not cause a change to the appearance of the object in the Artwork file...**" (Emphasis added); and further"... when translating from one language to another, the size of print (point size) may need to decrease, or increase, **to preserve the same legibility of original text...**" (Emphasis added). Applicants wish to point out that the portions of Shapiro underlined by the Examiner do not address the issue of whether the content of the files has been changed; that is, appearance and text legibility are merely two attributes of the graphic documents.

Applicants wish to direct the Board's attention to paragraph [0051], wherein it is stated that: "The object of the invention is to provide an integrated expert system for efficiently transforming location based objects, such as text or graphic objects, included in a digital source Artwork file, for example a geographical map file or a CAD design, and creating a transformed target Artwork file. ... The required transformations are then operated on the objects stored in the table, partly manually but also automatically creating a transformed second intermediate database, which is subsequently integrated with the source file to create a target file, which represents, for example a new map with translated text objects on new layers." Turning to paragraph [0072] of Shapiro, it is stated that: "... Representation Rules 135 (group 25) are used to automatically change the Type Aspects and intrinsic attributes of objects due to different language, **aesthetic constraints that require size change etc.** i.e. when translating from one language to another, the size of print (point size) may need to decrease or increase, to preserve the same legibility of the original text. Such point size changes may require further changes such as leading, inter-letter space etc. ... ." (Emphasis added by applicants.).

Applicants wish to point out that Shapiro does actually change the databases. First, in FIG. 5 and FIG. 6, the language is changed from English to French. Although



someone fluent in both English and French might not be inconvenienced by such change, an individual who had no understanding of French would not understand parts of FIG 6. Therefore, applicant fails to understand the Examiner's position that the content of the database has not been changed. To a user, the map has gone from understandable to incomprehensible. Since French has a few words in common with those in English, for emphasis consider the situation where the language was Chinese or Japanese, as examples.

Aside from the obvious changes in FIG. 5 and FIG. 6 of the actual languages associated with the map of Italy, paragraph [0072] teaches that the size of various items may be changed automatically in accordance with the teachings of Shapiro. Difficulties would be generated in a CAD program for an aircraft, as an example, since the parts would not fit together, and converting from one spoken language to another is to be distinguished from translating one computer language to another. Thus, applicants believe that the Examiner has improperly combined Shapiro with Ananian and Cianfrocca since Shapiro does not disclose the limitation "without modification of content," as suggested by the Examiner. Moreover, since Shapiro clearly teaches modification of database content, Shapiro teaches away from the present claimed invention.

As stated above, Article 2141.02 Differences Between Prior Art And Claimed Invention, Section VI. Prior Art Must Be Considered In Its Entirety, Including Disclosures That Teach Away From The Claims, of the Manual Of Patenting Examining Procedure states: "A prior art reference must be considered in its entirety, i.e., as a whole including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Applicants respectfully believe that the Examiner has not fully considered the teachings of Shapiro.

Article 2145, Consideration Of Applicant's Rebuttal Arguments, Section X.D.1. of the Manual Of Patent Examining Procedure states: "A prior art reference that teaches away from the claimed invention is a significant factor to be considered in determining obviousness; ... *In re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994). Since applicants respectfully believe that Shapiro teaches away from the

present claimed invention, applicants believe that the Examiner has improperly combined Shapiro with Cianfrocca et al. and Ananian et al.

**4. Motivation For The Combination of Cianfrocca And Ananian with Shapiro Is Lacking:**

The Examiner has stated that Shapiro discloses a suggestion for combining the references (Page 4, [0051], lines 1-9, Shapiro). As stated in paragraph [0051] of Shapiro, "The required transformations are then operated on the objects and stored in the table, partly manually but also automatically creating a transformed second intermediate database, which is subsequently integrated with the source file to create a target file, which represents, for example a new map with translated text objects on new layers." (Emphasis added by applicants.). Since, as stated hereinabove, applicants believe that Shapiro does indeed change the databases, applicants believe that there would be no motivation for combining Shapiro with Ananian et al. and Cianfrocca et al. "Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006).

Therefore, applicants believe that independent claims 1 and 7 are patentable over Ananian et al. in view of Cianfrocca et al. and further in view of Shapiro.

## CONCLUSION

In view of the foregoing, appellants submit that claims 1-11 are allowable, and respectfully request that the rejection of claims 1-11 by the Examiner be reversed by the Board.

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## **APPENDIX A**

### **Listing of Claims on Appeal**

1. A method of managing CAD data in a plurality of disparate and diverse databases comprising:

- providing a first database located in a first location and further being located behind a first firewall;

- providing a second database located in a second location and further being located behind a second firewall;

- providing a clearinghouse server located outside of said first firewall and said second firewall, said clearinghouse server having a clearinghouse database comprising an index to at least a portion of said CAD data in said first database and at least a portion of said CAD data in said second database;

- providing a workstation located behind said first firewall, said workstation having a clearinghouse interface program;

- establishing communications between said clearinghouse interface program with said clearinghouse server;

- transmitting a request for a requested file from said clearinghouse interface program to said clearinghouse server;

- determining that said requested file is located in said second database by using said clearinghouse database;

- sending a request from said clearinghouse server to said second database for said requested file;

- converting said requested file to a first transmittable format without content change of said requested file; and

- transmitting said requested file from said second database in said first transmittable format.

2. The method of claim 1 wherein said workstation is a CAD workstation and said clearinghouse interface program is a plug-in application.

3. The method of claim 1 wherein said establishing communications between said clearinghouse interface program and said clearinghouse server comprises authenticating and authorizing said clearinghouse interface program.

4. The method of claim 1 further comprising:

converting said requested file from said first transmittable format to a first CAD format;

translating said requested file from said first CAD format to a second CAD format;

converting said requested file from said first CAD format to a second transmittable format;

transmitting said requested file to said first CAD station using said second transmittable format; and

converting said requested file from said second transmittable format to said second CAD format.

5. The method of claim 4 wherein said step of translating said requested file from said first CAD format to said second CAD format is performed by said clearinghouse server.

6. The method of claim 1 wherein said first transmittable format comprises XML.

7. A system for sharing files across disparate databases comprising:

a first server located behind a first firewall and connected to a first database that contains a first set of files;

a second server located behind a second firewall and connected to a second database that contains a second set of files;

a clearinghouse server located outside of said first firewall and said second firewall;

a clearinghouse database located on said clearinghouse server and having an index to at least a portion of said first set of files in said first database and at least a portion of said second set of files in said second database;

a workstation located behind said first firewall and having a clearinghouse interface program capable of interfacing with said clearinghouse database on said clearinghouse server, said clearinghouse interface program further capable of sending a request for a specific file indexed in said clearinghouse database;

said clearinghouse server further receives said request for said specific file from said workstation, determines that said specific file is located on said second database, and sends said request for said specific file to said second server; and

said second server further receives said request for said specific file, locates said specific file in said second database, converts said specific file into a first transmittable format without content change of said specific file, and sends said specific file.

8. The system of claim 7 wherein said first database contains files in a first CAD format and said second database contains files in a second CAD format.

9. The system of claim 8 wherein said clearinghouse server is further adapted to:  
receive said specific file;

convert said specific file from said first transmittable format to said second CAD format;

translate said specific file from said second CAD format to said first CAD format;

convert said specific file from said first CAD format into a second transmittable format; and

transmit said specific file to said workstation.

10. The system of claim 7 wherein said clearinghouse interface program comprises a plug-in application.

11. The system of claim 7 wherein said transmittable format comprises XML.

## **APPENDIX B**

### **Evidence Appendix**

No evidence has been submitted by applicants.

## **APPENDIX C**

### **Related Proceedings Appendix**

There are no related proceedings.